

IN THE CLAIMS:

Please enter the following claims as amended:

1. (original) A switched reluctance electrical machine comprising a salient pole stator and a salient pole carrier along with a plurality of coils for association with magnetic means, the stator and the carrier configured to allow relative motion in use between the stator and carrier, each coil including a tap to alter the effective number of turns in that coil dependent upon the speed of relative motion between the carrier and the stator.
2. (amended) A machine as claimed in claim 1 wherein the tap or taps are fixed in terms of the effective number of turns in its coils.
3. (amended) A machine as claimed in claim 1 wherein the tap is arranged to reduce the effective number of turns in its coils by, ~~typically,~~ approximately a third of the total number of turns in that coil.
4. (original) A machine as claimed in claim 1 wherein the tap is individually determined for each coil of the plurality of coils in terms of incremental spacing to alter the effective number of turns in its coil.
5. (original) A machine as claimed in claim 1 wherein the tap is automatically adjusted relative to the carrier speed.
6. (original) A machine as claimed in claim 1 wherein the tap is arranged to provide substantially the same effective number of turns in each coil of the plurality of coils.
7. (original) A machine as claimed in claim 1 wherein the tap is manually adjustable in terms of the effective number of turns in its coil.
8. (original) A machine as claimed in claim 1 wherein the tap is adjustable dependent upon historical performance of the machine in terms of carrier speed.
9. (original) A machine as claimed in claim 1 in which the tap is adjustable through a control loop relative to the current carrier speed.
10. (original) A machine as claimed in claim 1 wherein the tap is switched into operation through an inertia switch dependent upon the carrier speed.

11. (original) A machine as claimed in claim 1 wherein the tap ensures that the number of turns effective in the coil are those furthest from the stator pole tip.
12. (original) An machine as claimed in claim 1 wherein the torque or power output from that electrical machine is substantially constant for a range of speed.
13. (original) An machine as claimed in claim 1 wherein the carrier is a rotor.
14. (original) An machine as claimed in claim 1 in which the carrier is a linear beam.
15. (original) An machine as claimed in claim 1 wherein relative motion in use is due to appropriately energising the coils in sequence to constitute an electric motor.
16. (original) An machine as claimed in claim 1 wherein the relative motion in use is due to application of an external driving force in order to constitute an electric current generator.
17. (original) An machine as claimed in claim 1 wherein the magnetic means is permanent magnets or electro-magnetic assemblies configured in the carrier or stator.
18. (new) A switched reluctance electrical machine comprising a salient pole stator and a salient pole carrier along with a plurality of coils for association with magnetic means, the stator and the carrier configured to allow relative motion in use between the stator and carrier, each coil including a tap to alter the effective number of turns in that coil dependent upon the speed of relative motion between the carrier and the stator and wherein a control device is provided and which monitors the power output of the machine. .